

## SEQUENCE LISTING

<110> Deutsches Krebsforschungszentrum

<120> Use of DMBT-1 for capturing sulphate and phosphate group exposing agents

<130> DK62080PC

<150> EP 04004281.4

<151> 2004-02-25

<160> 8

<170> PatentIn version 3.1

<210> 1

<211> 2413

<212> PRT

<213> Homo sapiens

<400> 1

Met Gly Ile Ser Thr Val Ile Leu Glu Met Cys Leu Leu Trp Gly Gln  
1 5 10 15

Val Leu Ser Thr Gly Gly Trp Ile Pro Arg Thr Thr Asp Tyr Ala Ser  
20 25 30

Leu Ile Pro Ser Glu Val Pro Leu Asp Pro Thr Val Ala Glu Gly Ser  
35 40 45

Pro Phe Pro Ser Glu Ser Thr Leu Glu Ser Thr Val Ala Glu Gly Ser  
50 55 60

Pro Ile Ser Leu Glu Ser Thr Leu Glu Ser Thr Val Ala Glu Gly Ser  
65 70 75 80

Leu Ile Pro Ser Glu Ser Thr Leu Glu Ser Thr Val Ala Glu Gly Ser  
85 90 95

Asp Ser Gly Leu Ala Leu Arg Leu Val Asn Gly Asp Gly Arg Cys Gln  
100 105 110

Gly Arg Val Glu Ile Leu Tyr Arg Gly Ser Trp Gly Thr Val Cys Asp  
115 120 125

Asp Ser Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly  
130 135 140

Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Trp Phe Gly Gln Gly  
145 150 155 160

Ser Gly Pro Ile Ala Leu Asp Asp Val Arg Cys Ser Gly His Glu Ser  
165 170 175

Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu Ser His Asn Cys Gly  
180 185 190

His Gly Glu Asp Ala Gly Val Ile Cys Ser Ala Ala Gln Pro Gln Ser  
195 200 205

Thr Leu Arg Pro Glu Ser Trp Pro Val Arg Ile Ser Pro Pro Val Pro  
210 215 220

Thr Glu Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly Gly  
225 230 235 240

Asp Arg Cys Arg Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp Gly  
245 250 255

Thr Val Cys Asp Asp Tyr Trp Asp Thr Asn Asp Ala Asn Val Val Cys  
260 265 270

Arg Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Gln  
275 280 285

Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser  
290 295 300

Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu Thr  
305 310 315 320

His Asn Cys Gly His Ser Glu Asp Ala Gly Val Ile Cys Ser Ala Pro  
325 330 335

Gln Ser Arg Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr Ser His Ala  
340 345 350

Ser Thr Ala Gly Pro Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly  
355 360 365

Gly Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp  
370 375 380

Gly Thr Val Cys Asp Asp Ser Trp Asp Thr Ser Asp Ala Asn Val Val  
385 390 395 400

Cys Arg Gln Leu Gly Cys Gly Trp Ala Thr Ser Ala Pro Gly Asn Ala  
405 410 415

Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys  
420 425 430

Ser Gly Tyr Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Leu  
435 440 445

Ser His Asn Cys Gln His Ser Glu Asp Ala Gly Val Ile Cys Ser Ala  
450 455 460

Ala His Ser Trp Ser Thr Pro Ser Pro Asp Thr Leu Pro Thr Ile Thr  
465 470 475 480

Leu Pro Ala Ser Thr Val Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu  
485 490 495

Val Asn Gly Gly Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg  
500 505 510

Gly Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp Thr Asn Asp Ala  
515 520 525

Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Met Leu Ala Pro  
530 535 540

Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp  
545 550 555 560

Val Arg Cys Ser Gly Asn Glu Ser Tyr Leu Trp Ser Cys Pro His Asn  
565 570 575

Gly Trp Leu Ser His Asn Cys Gly His Ser Glu Asp Ala Gly Val Ile  
580 585 590

Cys Ser Gly Pro Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly Gly  
595 600 605

Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp Gly  
610 615 620

Thr Val Cys Asp Asp Ser Trp Asp Thr Asn Asp Ala Asn Val Val Cys  
625 630 635 640

Arg Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Arg  
645 650 655

Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser

660

665

670

Gly His Glu Ser Tyr Leu Trp Ser Cys Pro Asn Asn Gly Trp Leu Ser  
675 680 685

His Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys Ser Ala Ala  
690 695 700

Gln Ser Arg Ser Thr Pro Arg Pro Asp Thr Leu Ser Thr Ile Thr Leu  
705 710 715 720

Pro Pro Ser Thr Val Gly Ser Glu Ser Ser Leu Thr Leu Arg Leu Val  
725 730 735

Asn Gly Ser Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly  
740 745 750

Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp Thr Asn Asp Ala Asn  
755 760 765

Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Thr Ser Ala Pro Gly  
770 775 780

Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val  
785 790 795 800

Arg Cys Ser Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly  
805 810 815

Trp Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys  
820 825 830

Ser Val Ser Gln Ser Arg Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr  
835 840 845

Ser His Ala Ser Thr Ala Gly Pro Glu Ser Ser Leu Ala Leu Arg Leu  
850 855 860

Val Asn Gly Gly Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg  
865 870 875 880

Gly Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp Thr Ser Asp Ala  
885 890 895

Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Thr Ser Ala Pro  
900 905 910

Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp  
915 920 925

Val Arg Cys Ser Gly Tyr Glu Ser Tyr Leu Trp Ser Cys Pro His Asn  
930 935 940

Gly Trp Leu Ser His Asn Cys Gln His Ser Glu Asp Ala Gly Val Ile  
945 950 955 960

Cys Ser Ala Ala His Ser Trp Ser Thr Pro Ser Pro Asp Thr Leu Pro  
965 970 975

Thr Ile Thr Leu Pro Ala Ser Thr Val Gly Ser Glu Ser Ser Leu Ala  
980 985 990

Leu Arg Leu Val Asn Gly Gly Asp Arg Cys Gln Gly Arg Val Glu Val  
995 1000 1005

Leu Tyr Gln Gly Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp  
1010 1015 1020

Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp  
1025 1030 1035

Ala Met Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly  
1040 1045 1050

Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly His Glu Ser Tyr  
1055 1060 1065

Leu Trp Ser Cys Pro His Asn Gly Trp Leu Ser His Asn Cys Gly  
1070 1075 1080

His Ser Glu Asp Ala Gly Val Ile Cys Ser Ala Ser Gln Ser Arg  
1085 1090 1095

Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr Ser His Ala Ser Thr  
1100 1105 1110

Ala Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu Val Asn Gly Gly  
1115 1120 1125

Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg Gly Ser Trp  
1130 1135 1140

Gly Thr Val Cys Asp Asp Tyr Trp Asp Thr Asn Asp Ala Asn Val  
1145 1150 1155

Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly  
1160 1165 1170

Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp  
1175 1180 1185

Val Arg Cys Ser Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His  
1190 1195 1200

Asn Gly Trp Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly  
1205 1210 1215

Val Ile Cys Ser Ala Ser Gln Ser Gln Pro Thr Pro Ser Pro Asp  
1220 1225 1230

Thr Trp Pro Thr Ser His Ala Ser Thr Ala Gly Ser Glu Ser Ser  
1235 1240 1245

Leu Ala Leu Arg Leu Val Asn Gly Gly Asp Arg Cys Gln Gly Arg  
1250 1255 1260

Val Glu Val Leu Tyr Arg Gly Ser Trp Gly Thr Val Cys Asp Asp  
1265 1270 1275

Tyr Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly  
1280 1285 1290

Cys Ser Trp Ala Thr Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln  
1295 1300 1305

Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly His  
1310 1315 1320

Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp Phe Ser His  
1325 1330 1335

Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys Ser Ala Ser  
1340 1345 1350

Gln Ser Gln Pro Thr Pro Ser Pro Asp Thr Trp Pro Thr Ser His  
1355 1360 1365

Ala Ser Thr Ala Gly Ser Glu Ser Ser Leu Ala Leu Arg Leu Val  
1370 1375 1380

Asn Gly Gly Asp Arg Cys Gln Gly Arg Val Glu Val Leu Tyr Arg  
1385 1390 1395

Gly Ser Trp Gly Thr Val Cys Asp Asp Tyr Trp Asp Thr Asn Asp  
1400 1405 1410

Ala Asn Val Val Cys Arg Gln Leu Gly Cys Gly Trp Ala Thr Ser  
1415 1420 1425

Ala Pro Gly Asn Ala Arg Phe Gly Gln Gly Ser Gly Pro Ile Val  
1430 1435 1440

Leu Asp Asp Val Arg Cys Ser Gly His Glu Ser Tyr Leu Trp Ser  
1445 1450 1455

Cys Pro His Asn Gly Trp Leu Ser His Asn Cys Gly His His Glu  
1460 1465 1470

Asp Ala Gly Val Ile Cys Ser Ala Ser Gln Ser Gln Pro Thr Pro  
1475 1480 1485

Ser Pro Asp Thr Trp Pro Thr Ser Arg Ala Ser Thr Ala Gly Ser  
1490 1495 1500

Glu Ser Thr Leu Ala Leu Arg Leu Val Asn Gly Gly Asp Arg Cys  
1505 1510 1515

Arg Gly Arg Val Glu Val Leu Tyr Gln Gly Ser Trp Gly Thr Val  
1520 1525 1530

Cys Asp Asp Tyr Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg  
1535 1540 1545

Gln Leu Gly Cys Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Gln  
1550 1555 1560

Phe Gly Gln Gly Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys  
1565 1570 1575

Ser Gly His Glu Ser Tyr Leu Trp Ser Cys Pro His Asn Gly Trp  
1580 1585 1590

Leu Ser His Asn Cys Gly His His Glu Asp Ala Gly Val Ile Cys  
1595 1600 1605

Ser Ala Ala Gln Ser Gln Ser Thr Pro Arg Pro Asp Thr Trp Leu  
1610 1615 1620

Thr Thr Asn Leu Pro Ala Leu Thr Val Gly Ser Glu Ser Ser Leu  
1625 1630 1635

Ala Leu Arg Leu Val Asn Gly Gly Asp Arg Cys Arg Gly Arg Val  
1640 1645 1650

Glu Val Leu Tyr Arg Gly Ser Trp Gly Thr Val Cys Asp Asp Ser  
1655 1660 1665

Trp Asp Thr Asn Asp Ala Asn Val Val Cys Arg Gln Leu Gly Cys  
1670 1675 1680

Gly Trp Ala Met Ser Ala Pro Gly Asn Ala Arg Phe Gly Gln Gly  
1685 1690 1695

Ser Gly Pro Ile Val Leu Asp Asp Val Arg Cys Ser Gly Asn Glu  
1700 1705 1710

Ser Tyr Leu Trp Ser Cys Pro His Lys Gly Trp Leu Thr His Asn  
Page 7

1715

1720

1725

Cys Gly His His Glu Asp Ala Gly Val Ile Cys Ser Ala Thr Gln  
 1730 1735 1740

Ile Asn Ser Thr Thr Thr Asp Trp Trp His Pro Thr Thr Thr Thr  
 1745 1750 1755

Thr Ala Arg Pro Ser Ser Asn Cys Gly Gly Phe Leu Phe Tyr Ala  
 1760 1765 1770

Ser Gly Thr Phe Ser Ser Pro Ser Tyr Pro Ala Tyr Tyr Pro Asn  
 1775 1780 1785

Asn Ala Lys Cys Val Trp Glu Ile Glu Val Asn Ser Gly Tyr Arg  
 1790 1795 1800

Ile Asn Leu Gly Phe Ser Asn Leu Lys Leu Glu Ala His His Asn  
 1805 1810 1815

Cys Ser Phe Asp Tyr Val Glu Ile Phe Asp Gly Ser Leu Asn Ser  
 1820 1825 1830

Ser Leu Leu Leu Gly Lys Ile Cys Asn Asp Thr Arg Gln Ile Phe  
 1835 1840 1845

Thr Ser Ser Tyr Asn Arg Met Thr Ile His Phe Arg Ser Asp Ile  
 1850 1855 1860

Ser Phe Gln Asn Thr Gly Phe Leu Ala Trp Tyr Asn Ser Phe Pro  
 1865 1870 1875

Ser Asp Ala Thr Leu Arg Leu Val Asn Leu Asn Ser Ser Tyr Gly  
 1880 1885 1890

Leu Cys Ala Gly Arg Val Glu Ile Tyr His Gly Gly Thr Trp Gly  
 1895 1900 1905

Thr Val Cys Asp Asp Ser Trp Thr Ile Gln Glu Ala Glu Val Val  
 1910 1915 1920

Cys Arg Gln Leu Gly Cys Gly Arg Ala Val Ser Ala Leu Gly Asn  
 1925 1930 1935

Ala Tyr Phe Gly Ser Gly Ser Gly Pro Ile Thr Leu Asp-Asp Val  
 1940 1945 1950

Glu Cys Ser Gly Thr Glu Ser Thr Leu Trp Gln Cys Arg Asn Arg  
 1955 1960 1965

Gly Trp Phe Ser His Asn Cys Asn His Arg Glu Asp Ala Gly Val  
 1970 1975 1980

Ile Cys Ser Gly Asn His Leu Ser Thr Pro Ala Pro Phe Leu Asn  
1985 1990 1995

Ile Thr Arg Pro Asn Thr Asp Tyr Ser Cys Gly Gly Phe Leu Ser  
2000 2005 2010

Gln Pro Ser Gly Asp Phe Ser Ser Pro Phe Tyr Pro Gly Asn Tyr  
2015 2020 2025

Pro Asn Asn Ala Lys Cys Val Trp Asp Ile Glu Val Gln Asn Asn  
2030 2035 2040

Tyr Arg Val Thr Val Ile Phe Arg Asp Val Gln Leu Glu Gly Gly  
2045 2050 2055

Cys Asn Tyr Asp Tyr Ile Glu Val Phe Asp Gly Pro Tyr Arg Ser  
2060 2065 2070

Ser Pro Leu Ile Ala Arg Val Cys Asp Gly Ala Arg Gly Ser Phe  
2075 2080 2085

Thr Ser Ser Ser Asn Phe Met Ser Ile Arg Phe Ile Ser Asp His  
2090 2095 2100

Ser Ile Thr Arg Arg Gly Phe Arg Ala Glu Tyr Tyr Ser Ser Pro  
2105 2110 2115

Ser Asn Asp Ser Thr Asn Leu Leu Cys Leu Pro Asn His Met Gln  
2120 2125 2130

Ala Ser Val Ser Arg Ser Tyr Leu Gln Ser Leu Gly Phe Ser Ala  
2135 2140 2145

Ser Asp Leu Val Ile Ser Thr Trp Asn Gly Tyr Tyr Glu Cys Arg  
2150 2155 2160

Pro Gln Ile Thr Pro Asn Leu Val Ile Phe Thr Ile Pro Tyr Ser  
2165 2170 2175

Gly Cys Gly Thr Phe Lys Gln Ala Asp Asn Asp Thr Ile Asp Tyr  
2180 2185 2190

Ser Asn Phe Leu Thr Ala Ala Val Ser Gly Gly Ile Ile Lys Arg  
2195 2200 2205

Arg Thr Asp Leu Arg Ile His Val Ser Cys Arg Met Leu Gln Asn  
2210 2215 2220

Thr Trp Val Asp Thr Met Tyr Ile Ala Asn Asp Thr Ile His Val  
2225 2230 2235

Ala Asn Asn Thr Ile Gln Val Glu Glu Val Gln Tyr Gly Asn Phe  
2240 2245 2250

Asp Val Asn Ile Ser Phe Tyr Thr Ser Ser Ser Phe Leu Tyr Pro  
2255 2260 2265

Val Thr Ser Arg Pro Tyr Tyr Val Asp Leu Asn Gln Asp Leu Tyr  
2270 2275 2280

Val Gln Ala Glu Ile Leu His Ser Asp Ala Val Leu Thr Leu Phe  
2285 2290 2295

Val Asp Thr Cys Val Ala Ser Pro Tyr Ser Asn Asp Phe Thr Ser  
2300 2305 2310

Leu Thr Tyr Asp Leu Ile Arg Ser Gly Cys Val Arg Asp Asp Thr  
2315 2320 2325

Tyr Gly Pro Tyr Ser Ser Pro Ser Leu Arg Ile Ala Arg Phe Arg  
2330 2335 2340

Phe Arg Ala Phe His Phe Leu Asn Arg Phe Pro Ser Val Tyr Leu  
2345 2350 2355

Arg Cys Lys Met Val Val Cys Arg Ala Tyr Asp Pro Ser Ser Arg  
2360 2365 2370

Cys Tyr Arg Gly Cys Val Leu Arg Ser Lys Arg Asp Val Gly Ser  
2375 2380 2385

Tyr Gln Glu Lys Val Asp Val Val Leu Gly Pro Ile Gln Leu Gln  
2390 2395 2400

Thr Pro Pro Arg Arg Glu Glu Glu Pro Arg  
2405 2410

<210> 2

<211> 7242

<212> DNA

<213> Homo sapiens

<400> 2  
atggggatct ccacagtcat cttgaaatg tgtctttat gggacaagt tctatctaca 60  
ggtgtgtgga taccaaggac tacagactac gtttactga ttccctcgga ggtgcccttg  
gatccaactg tagcagaagg ttctccattt ccctcgagg cgaccctgga gtcaactgt  
gcagaagggtt ctccgatttc ctggagtca accctggagt caactgttagc agaaggttct  
ctgattccat cagagtcaac cttggagtca actgttagcag aaggatctga ttctggtttg 300

gccctgaggc tggtaatgg agatggcagg tgtcagggcc gagtggagat cctataccga	360
ggctcctgg gcaccgtgtg tcatgcacgc tggcaccca atgatgccaa cgtggctgt	420
aggcagctgg gttgtggctg ggccatgtca gctccaggaa atgcctggtt tggccaggc	480
tcaggaccca ttgcctgga tcatgtgcgc tgctcaggac acgaatccta cctgtggagc	540
tgccccaca atggctggct ctcccataac tgtggccatg gtgaagatgc tggtgttatac	600
tgctcagctg cccagcctca gtcaacactc aggccagaaa gttggcctgt caggatatac	660
ccacctgtac ccacagaagg atctgaatcc agtttggccc tgaggctggt gaatggaggc	720
gacaggtgtc gaggccgggt ggaggtccta taccgaggct cctggggcac cgtgtgtat	780
gactactggg acaccaatga tgccaatgtg gtctgcaggc agctgggctg tggctggcc	840
atgtcagccc cagaaatgc ccagttggc cagggctcag gaccattgt cctggatgtat	900
gtgcgtgct caggacacga gtcctacctg tggagctgcc cccacaatgg ctggctcacc	960
cacaactgtg gccatagtga agacgctggt gtcatctgct cagctccca gtcccgccg	1020
acacccagcc cagatacttg gccgaccta catgcataa cagcaggacc tgaatccagt	1080
ttggccctga ggctggtgaa tggaggtgac aggtgtcagg gccgagtggaa ggtcctatac	1140
cgaggctcct ggggcaccgt gtgtgtat agctggaca ccagtgacgc caatgtggtc	1200
tgccggcagc tggctgtgg ctgggccacg tcagccccag gaaatgcccgt tttggccag	1260
gtttcaggac ccattgtcct ggatgacgtc cgctgctcag gctatgagtc ctacctgtgg	1320
agctgccccca acaatggctg gctctccat aactgtcagc acagtgaaga cgctgggtgtc	1380
atctgctcag ctgcccactc ctggtcgacg cccagtcacg acacgttgc gaccatcacc	1440
ttacctgcat cgacagtagg atctgaatcc agtttggccc tgaggctggt gaatggaggt	1500
gacaggtgtc agggccgagt ggaggtccta taccgaggct cctggggcac cgtgtgtat	1560
gacagctggg acaccaatga tgccaatgtg gtctgcaggc agctgggctg tggctggcc	1620
atgttggccc cagaaatgc ccgttttgtt cagggctcag gaccattgt cctggatgac	1680
gtgcgtgct caggaaatga gtcctacttg tggagctgcc cccacaatgg ctggctctcc	1740
cataactgtg gccatagtga agacgctggt gtcatctgct caggacactga atccagttg	1800
gccctgaggc tggtaatgg aggtgacagg tgtcagggcc gagtggaggt cctataccga	1860
ggctcttggg gcaccgtgtg tcatgcacgc tggcaccca atgatgccaa tggctgtgc	1920
aggcagctgg gctgtggctg ggccatgtca gccccaggaa atgcccgggt tggctaggc	1980
tcaggaccca ttgtcctgga tcatgtgcgc tgctcaggac atgagtccta cctgtggagc	2040
tgccccaca atggctggct ctcccacaac tgtggccatc atgaagatgc tgggtgtatc	2100
tgctcagctg cccagtcctg gtcgacgccc aggccagaca cgttgcgc acatcacgtta	2160
cctccatcga cagtaggatc tgaatccagt ttgaccctga ggctggtgaa tggaaatgtac	2220
agggtgtcagg gccgagtaga ggtcctatac cgaggctcct ggggcaccgt gtgtgtat	2280
agctgggata ccaatgtatgc caatgtatgc tgcaggcagc tggctgtgg ctggccacg	2340

tcggccccag gaaatgcccgg	2400
gttggccagg ggctcaggac	
ccattgtct ggatgatgt	
cgctgctcag gacacgagtc	2460
ctacctgtgg agctgcccccc	
acaatggctg gctctccac	
aactgtggcc atcatgaaga	2520
tgctgggtgc atctgctcag	
tttcccagtc ccggccgaca	
cccagtccag atacttggcc	2580
gacctcacat gcatcaacag	
caggacctga atccagctt	
gccctgaggc tggtaatgg	2640
aggtgacagg tgtcagggcc	
gagtggaggt cctataccga	
ggctcctggg gcaccgtgt	2700
tgatgatagc tggcaccca	
gtgacgccaa tgtggctgc	
cggcagctgg gctgtggctg	2760
ggccacgtca gccccaggaa	
atgcccggtt tggccagggt	
tcaggaccctt ttgtccttga	2820
tgacgtgcgc tgctcaggct	
atgagtccta cctgtggagc	
tgccccaca atggctggct	2880
ctccccataac tgtcagcaca	
gtgaagacgc tgggtcatc	
tgctcagctg cccactcctg	2940
gtcgacgccc agtccagaca	
cattgcccac catcacctt	
cctgcacatcga cagtaggatc	3000
tgaatccagt ttggccctga	
ggctggtgaa tggaggtgac	
aggtgtcagg gccgagtgg	3060
ggtcctatac caaggctcct	
ggggcaccgt gtgcgtatgc	
agctgggaca ccaatgatgc	3120
aatgtcgtc tgcaaggcaac	
tgggctgtgg ctgggccatg	
tcagccccag gaaatgcccgg	3180
gttggtcag ggctcaggac	
ccattgtcct ggatgatgt	
cgctgctcag gacacgagtc	3240
ttacctgtgg agctgcccccc	
acaatggctg gctctccac	
aactgtggcc atagtgaaga	3300
cgctgggtgc atctgctcag	
tttcccagtc ccggccaaca	
cctagtccag acacttggcc	3360
aacctcacat gcatcaacag	
caggatctga atccagttt	
gccctgaggc tggtaatgg	3420
aggtgacagg tgtcagggcc	
gagtggaggt cctataccga	
ggctcctggg gcaccgtgt	3480
tgatgactac tggcaccca	
atgatgccaa tgtggtttgc	
aggcagctgg gctgtggctg	3540
ggccatgtca gccccaggaa	
atgcccggtt tggccagggt	
tcaggaccctt ttgtccttga	3600
tgatgtgcgc tgctcaggac	
atgagtccta tctgtggagc	
tgccccaca atggctggct	3660
ctccccacaac tgtggccatc	
atgaagacgc tgggtcatc	
tgctcagctt cccagtcaca	3720
gccgacacccc agcccagaca	
cttggccaaac ctcacatgca	
tcaacacgc gatctgaatc	3780
cagttggcc ctgaggctgg	
tgaatggagg tgacaggtgt	
cagggccgag tggaggtcct	3840
ataccgaggt tcctggggca	
ccgtgtgtga tgactactgg	
gacaccaatg atgcaatgt	3900
ggtttgcagg cagctggct	
gtagctggc cacgtcagcc	
ccagggaaatg cccggtttgg	3960
ccaggggttca ggaccattt	
tcctggatga tgtgcgtgc	
tcaggacatg agtcctatct	4020
gtggagctgc ccccacaatg	
gctggttctc ccacaactgt	
ggccatcatg aagacgctgg	4080
tgtcatctgc tcagttccc	
agtcccagcc gacacccaggc	
ccagacaccc ggccaaacctc	4140
acatgcatca acagcaggat	
ctgaatccag tttggccctg	
aggctggtga atggaggtga	4200
caggtgtcag ggccgagtgg	
aggtcctataa ccgaggctcc	
tggggcaccg tgggtatga	4260
ctactggac accaatgatg	
ccaatgtggt ttgcaggcag	
ctgggctgtg gctggccac	4320
gtcagcccc gaaatgccc	
ggtttggcca gggttcagga	
cccattgtcc tggatgtgt	4380
gcgtcgtca ggacatgagt	
cctatctgt gagctgcccc	
cacaatggct ggctctccca	4440
caactgtggc catcatgaag	
acgctggtgt catctgctca	

gctccccagt	cccagccgac	acccagccca	gacacttggc	caacctctcg	tgcataaca	4500
gcaggatctg	aatccacttt	ggccctgaga	ctggtaatg	gaggtgacag	gtgtcgaggc	4560
cgagtggagg	tcctatacca	aggctcctgg	ggcacccgtgt	gtgatgacta	ctgggacacc	4620
aatgatgcca	acgtggtctg	caggcagctg	ggctgtggct	ggccatgtc	agccccagga	4680
aatgcccagt	ttggccaggg	ctcaggaccc	attgtcctgg	atgatgtcg	ctgctcagga	4740
cacgagtctt	acctgtggag	ctgcccccac	aatggctggc	tctcccacaa	ctgtggccat	4800
catgaagatg	ctggtgtcat	ctgctcagct	gctcagtccc	agtcaacgcc	caggccagat	4860
acttggctga	ccaccaaactt	acggcattt	acagtaggat	ctgaatccag	tttggctctg	4920
aggctggtga	atggaggtga	caggtgtcg	ggccgagtgg	aggtcctgta	tcgaggctcc	4980
tggggAACCG	tgtgtatga	cagctggac	accaatgatg	ccaatgtgg	ctgcaggcag	5040
ctgggctgtg	gctggccat	gtcgccccca	ggaaatgccc	ggttggcca	gggctcagga	5100
cccattgtcc	tggatgtgt	gcgcgtctca	ggaaatgagt	cctacctgtg	gagctgcccc	5160
cacaaaggct	ggctcaccca	caactgtggc	catcacgaag	acgctggtgt	catctgctca	5220
gccacccaaa	taaattctac	tacgacagat	tggtggcatc	caacaactac	aaccactgca	5280
agaccctctt	caaattgtgg	tggcttctta	ttctatgcca	gtggacatt	ctccagccca	5340
tcctaccctg	catactaccc	caacaatgct	aagtgtgtt	ggaaataga	agtgaattct	5400
ggttatcgca	taaacctggg	cttcagtaat	ctgaaattgg	aggcacacca	taactgcagt	5460
tttgattatg	ttgaaatctt	tgtggatca	ttgaatagca	gtctcctgct	ggggaaaatc	5520
tgtaatgata	ccaggcaaat	atttacatct	tcttacaacc	aatgaccat	tcactttcga	5580
agtgacatca	gtttccaaaa	cactggcttt	ttggcttgg	ataactcctt	cccaagcgat	5640
gccaccttga	ggttggtcaa	tttaaattca	tcctatggc	tatgtgccgg	gcgtgttagaa	5700
atttaccatg	gtggcacctg	ggggacagtt	tgtgtact	cctggaccat	tcaaggact	5760
gaggtggct	gcagacagct	agggtgtgga	cgtcagtt	cagcccttgg	aaatgcata	5820
tttggctctg	gctctggccc	catcacccctg	gacgatgtag	agtgcctagg	gacggaatcc	5880
actctctggc	agtggcgaa	ccgaggctgg	ttctcccaca	actgtaatca	tcgtgaagat	5940
gctgggtgtca	tctgctcagg	aaaccatcta	tcgacacctg	ctcctttct	caacatcacc	6000
cgtccaaaca	cagattattc	ctgcggaggc	ttcctatccc	aaccatcagg	ggactttcc	6060
agcccattct	atcccggaa	ctatccaaac	aatgccaagt	gtgtgtgg	cattgaggt	6120
caaaacaact	accgtgtgac	tgtgatcttc	agagatgtcc	agcttgaagg	tggctgcaac	6180
tatgattata	ttgaagttt	cgatggcccc	taccgcagtt	cccctctcat	tgctcgagtt	6240
tgtgatgggg	ccagaggctc	cttcacttct	tcctccaaact	tcatgtccat	tcgcttcatc	6300
agtgaccaca	gcatcacaag	gagagggttc	cgggctgagt	actactccag	tccctccaa	6360
gacagcacca	acctgctctg	tctgccaaat	cacatgcaag	ccagtgtgag	caggagctat	6420
ctccaaatcct	ttggcttttc	tgccagtgac	tttgtcattt	ccacctggaa	tggataactac	6480

gagtgtcggc cccagataac gccgaacctg gtgatattca caattcccta ctcaaggctgc 6540  
ggcacttca agcaggcaga caatgacacc atcgactatt ccaacttcct cacagcagct 6600  
gtctcaggtg gcatcatcaa gaggaggaca gacctccgta ttcacgtcag ctgcagaatg 6660  
cttcagaaca cctgggtcga caccatgtac attgctaattg acaccatcca cggtgctaatt 6720  
aacaccatcc aggtcgagga agtccagtat ggcaattttg acgtgaacat ttcccttttat 6780  
acttcctcat ctttcttgta tcctgtgacc agccgccctt actacgtgga cctgaaccag 6840  
gacttgtacg ttcaggctga aatcctccat tctgatgctg tactgaccctt gtttgtggac 6900  
acctgcgtgg catcaccata ctccaaatgac ttcacgtctt tgacttatga tctaattccgg 6960  
agtggatgcg tgagggatga cacctacgga ccctactcct cggcgtctct tcgcattgcc 7020  
cgcttccggc tcagggcctt ccacttcctg aaccgcttcc cctccgtgta cctgcgttgc 7080  
aaaatggtgg tgtgcagagc gtatgacccc tcttcccgct gctaccgagg ctgtgtgttg 7140  
aggtcgaaga gggatgtggg ctccattaccag gaaaaggtgg acgtcgtcct gggtcccatac 7200  
cagctgcaga cccccccacg ccgagaagag gagcctcggt ag 7242

<210> 3  
<211> 28  
<212> DNA  
<213> Dmbt1/Kocf1

<400> 3  
gcacttagtgg caaggtaaag gaggcaag 28

<210> 4  
<211> 26  
<212> DNA  
<213> Dmbt1/KOcr1

<400> 4  
tgtctagacc ttcaccgaac gactcc 26

<210> 5  
<211> 20  
<212> DNA  
<213> Dmbt1/Koaf1

<400> 5  
cccagtgtca gtgagcttag 20

<210> 6

<211> 21

<212> DNA

<213> Dmbt1/Koarl

<400> 6

gctcaacaac tgctaccata c

21

<210> 7

<211> 23

<212> DNA

<213> Dmbt1/Kobf1

<400> 7

ctttgtggg gtcaaattct gtc

23

<210> 8

<211> 19

<212> DNA

<213> Dmbt1/KObri

<400> 8

ctgttgtcc cttgacctg

19